Submitted on
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Comments on January 30, 2004 draft Cal. Water Plan Update
From Grace Chan, MWDSC

Overall comment: While this draft has achieved much in the attempt to state the facts and discuss the known in any objective tone, it sounds more like lectures from professors than a strategic plan. The Plan still needs to clearly articulate its key messages and the various chapters in volume 1 need to be constructed around the key messages and read as one cohesive piece. Right now, once you leave the findings and recommendations, the chapters are individual lectures and academic discussions

Chapter 1

Suggested themes:

- California needs to invest in water resource management strategies to maintain its vibrant economy and quality of life for its residences.
- Water issues are complex and often times contentious, yet solvable with leadership from the state and federal government and collaboration of stakeholders.
- Water agencies in many regions are successfully employing a diverse mix of water management strategies.
- State, regional, and local governments and water suppliers each has a role in ensuring water supply and quality reliability for existing and projected population. Partnerships of these entities are key to ensure their plans complement each other, and necessary programs and projects are implemented.

Tone:
As much as possible, maintain an objective tone. Current tone is acceptable.

Specific Comments:

- Disagree with additions to key finding #4 from Nick Di Croce. Actions for conserving water or reduce demands have similarly been impacted by the budget constraints as water supply augmentation projects.

- Okay with additions to key recommended actions #1

- Why do we need another Governor's Strategic Water Team in additional recommended actions #1? Isn't that the job of the Resource Agency?

Chapter 3

Not sure what is the message in the current draft. It lists a number of uncertainties and offers no solutions or even steps to deal with them.

One way to organize the chapter:

Planning needs to take into account 3 types of uncertainties.

- Key drivers of water uses have inherent uncertainties: population and economic growth, global market affecting the economy (both ag and urban), unknown health effects of water quality contaminants from past activities, changing water quality conditions and regulations, etc.
- Preparedness for events that we know would happen, but the timing and magnitude of impacts is uncertain: droughts, flood events, seismic events
- Preparedness for emerging issues, e.g. global climate change

Ways to mitigate adverse impacts of these uncertainties:

- Evaluate multiple scenarios and response packages to identify common elements to devise a Plan that is flexible and adaptable. Resultant plan probably would rely on a diverse portfolio to minimize the risk.
- Monitor the above factors closely, i.e. need data.
- Monitor Plan performance, i.e. need data and analytical tools.
- Emphasize on science, technology, engagement of regions.

(Move a shortened version of quantitative analysis description to Ch. 5)

Specific comments:

P. 2. Doesn't all water districts have some emergency respondent plan to reduce impacts due to an earthquake? The statement "several water districts have…" implies that most do not.

p.3. Need to rethink how the paragraph on terrorist acts should contain. It is now giving people (e.g. hackers) ideas to sabotage.

Scenario 1 – current trends: continue with no big surprises (what does this mean?) Suggest to say – continue with existing plans by water agencies with no significant changes in management practices and policies.

The factors should be the same for all scenarios. For example, transfers and conveyance is not in the current trends and resource intensive scenario. Are you implying that this factor does not exist in those scenarios? Public trust is also not in scenarios 1 and 3.

Without analysis, one cannot determine what facilities would be needed or not needed. Should not jump to the conclusion that under scenario 2, there would not be "large inter-

regional transfers, especially those that must pump through the Delta." Also shows the bias that facility = adverse impact. Facilities can be operated to give multiple benefits, including benefits to the environment.

Scenario 3 – Difficulty attracting clean, efficient industries has an impact on the state's attractiveness. Not necessarily a required condition. While existing industries may not have progressed to be as efficient as "current trends", the state could still be attracting clean, efficient, new industries.

Response packages description is very confusing and difficult to follow. Suggest include a table listing all 25 management strategies and mark High, Medium, or Low applications under each package. No strategy can be completely eliminated (e.g. storage and desalination) without analysis, maybe a low designation for some packages.

Future Quantitative Analysis

Section too detailed for volume 1.
Reads like a professor's lecture.
Too much of a defeatist tone. Current tools cannot answer all questions, but still useful and inform certain decisions. Section seems to invalidate every analysis that has been done!
What does principle 11 mean? You cannot have this supermodel that has all local and regional water management and resources explicitly represented. Local plans change constantly and the maintenance would be horrendous. Besides, local agencies would be suspicious of this "Big Brother" and fear that the state would tell them how to operate their systems. Better to work closely with regional and local agencies to capture key water management strategies.

Global Climate Change

The **Global Climate Change** section Volume 1, Chapter 3 opens with language stressing the scientific consensus over human-induced climate change and related impacts, while highlighting uncertainty of the impacts at the end. The section recommends that water agencies incorporate climate change into the design, planning and operation of water systems. In prior drafts we have commented that this is premature given the uncertainty of climate change and its potential impacts.

Specific Comments

Volume 1; Chapter 3: Global Climate Change Section

Page 1. Introductory Paragraph: The introduction underplays the level of uncertainty in climate change science and associated water resource impacts to California, and ignores natural climate variation, which is part of the picture. This section should also place climate change impacts in context; other major long-term uncertainties facing water resources include growth, water quality, environmental regulation, and politics. In this

context, potential climate change impacts are one uncertainty among many that water resource agencies must manage.

Page 1. Introductory Paragraph, Second Sentence: This sentence states that "Climate changes have occurred during the 20th century." Some of the changes include ENSO cycles and El Nino / La Nina effects. As late as the 1940's, scientists were discussing the possibility of a new ice age. Suggest that this sentence be deleted.

Page 1. Recommendation #1: This recommends that water agencies incorporate climate change in the "design, planning and operation of systems." This includes implementing no and low regret solutions and changing design criteria for "valuable assets." Recommend that this recommendation be deleted because in most cases, the level of uncertainty over the timing and magnitude of climate change impacts is too great at the regional level to reasonably change water system designs, plans and operation. Also, most of the "no-regret" solutions listed in this recommendation are being implemented throughout the state. Overall, recommend that more California-specific climate change research is needed before firm actions are taken.

Page 1-2 Recommendations #2-4: These recommendations call for increasing the monitoring of California's climate and hydrology, developing funding for the development of regional and local climate change strategic plans, and supporting efforts to enhance public awareness of potential climate change impacts. I think we support most of these recommendations, with the exception of assisting local agencies with "integrating climate change into regional strategic water plans" (read UWMPs). Better would be assisting local agencies with understanding the local impacts of climate change and supporting regional/local climate change studies. Again, with the possible exception of sea level rise, potential climate change impacts are too uncertain at the local level at this time to warrant altering strategic plans.

Page 3, Sea Level Rise: Suggest changing "Global warming is already leading to sea level rise" to "Global warming *may* already *be* . .

Page 4, Other Impacts (¶3): This section discusses how "there are many uncertainties to the extent of impacts due to climate change." Suggest that this discussion be moved to the introduction.

Page 4, Adaptations and Responses (¶1-3) This section recommends incorporating "flexibility and robustness" into water systems. While no recommendations are listed here, the section refers to a Pacific Institute report included in the Reference Section (Volume 4). It is likely that objectionable recommendations are contained in this report.

Chapter 4

Chapter reads like a book report on regional and integrated water resources planning, what integrated planning is, the benefits that it provides, the areas of concern and costs that should be accounted for, and recommendations for implementing integrated planning.

Need to shorten the discussion and tie it more to key messages of the Plan.

Specific comments:

Examples of reduce supplies box – "The State Water Project and its… deliveries of 4.2 million acre-feet ~~per~~ every year were not…" I understand that SWP can, on very rare circumstance, still deliver 4.2 MAF in a year.

P2, 2nd paragraph, delete the two sentences, "However, the long-term impact…. This is largely due to….not yet fully understood." These statements are judgmental and not needed. Suggest linking to the next sentence with: "In addition, the statewide drought of the late 1980 causes the users of import water to realize that even though…"

P2, 2nd paragraph, "Some local agencies are responding… to slow growth in water demands as well as increasing the variety of supply option ~~that are less constrained by laws and regulations~~." If you were a local water agency, you would appreciate what laws and regulations are imposed on recycling water usage and groundwater conjunctive use.

P3, line 2, "~~The only apparent drawback to~~ Integrated regional planning ~~is the~~ <u>may involve</u> additional costs and time ~~associated with such an approach~~." Those not doing it must see other drawbacks.

P15, Economic and financial evaluation – jargon alert: "benefit-decay", "inter-annual variability"!!

Chapter 6

Understanding that it is being rewritten, I would not comment

Just to let you know that local water agencies in my area are asking,

> "What is the value of Bulletin 160 to the local retail agencies? How does this regional information apply at the local retail level?"

The implementation chapter needs to recognize the role local agencies play in implementing many strategies.

Volume 2

I would not be provided editorial comments as I am sure that your proofreaders will eventually catch.

Agricultural Lands Stewardship

The Palo Verde Irrigation District Land Fallowing Program **should be named the Palo Verde Irrigation District Land Management, Crop Rotation, and Water Supply Program**. (No land is permanently fallowed, or converted to other uses, under this program.) As negotiations are still ongoing, please check back w/ MWDSC prior to publishing of public release draft for updated financial terms.

Agricultural water use efficiency

P4, 4th paragraph, when describing the Colorado River, 4.4 MAF is California's basic entitlement, not annual allocation.

Conveyance

General Comments

The chapter remains fundamentally biased against water diversions and infrastructure. Care should be taken to rule any strategy in or out prior to analysis. Just because some interest groups do not like it would not be enough reason to say that it should take a lower priority. Some public groups are against use of recycled water too.

This section suffers from a failure to define terms and to justify distinctions. When terms remain squishy, the authors have more scope to make subjective arguments cloaked as objectivity. Some examples:

- Conveyance between regions vs conveyance within regions (page 1, etc.). The term region is never defined. Nor is there any real discussion why intra-regional conveyance is to be distinguished from inter-regional conveyance. The only distinction that makes any physical (as opposed to political) sense is to distinguish intra watershed vs inter watershed because of the importance of return flows. Even then, the distinction is rather weak. The fish don't care whether a diversion is for local use or for long-term transfer (except for return flows). Moreover, projects which are apparently considered local in the document (e.g., the Tehama Colusa Canal, the Contra Costa Canal, the Friant-Kern Canal) can be large projects that send water to areas not adjacent to the river and that send little or no water back into the watershed where it can be used. So are these intra regional projects or not? Basically, I think this distinction was created as a way of establishing political correctness (damage caused by diversions to destinations less than 50 miles from a River is more acceptable than damage caused by diversions for use farther away).

- The statement is made that the purpose of conveyance is to meet the needs of all sectors – including environmental (instream) needs. I can think of a few cases where this is true. For example, we might end up using conveyance as a means of rewatering the San Joaquin River. But in general, this seems like a distortion of what most of us mean by "conveyance". In general, conveyance is built to satisfy economic objectives. Our construction and operation of conveyance limited by the desire to protect the environment. But environmental needs are a constraint on conveyance, not an objective of conveyance. I could just as easily say that instream flow standards should have as an objective maximization of water diversions. It doesn't make sense to mix these concepts. Better to stick with normal usage and accept that there is a tension between our desire to divert and use water for economic purposes and our desire to leave water in the river to protect and enhance the environment. If we are clever, we can reduce this tension. But the tension will always be there.
- The concept of "system flexibility" is never defined. Everyone talks about how great it is, but no one defines it or explains why it is desirable. I would say system flexibility is the extent to which the use of water can be decoupled from the diversion of water in time and space. Thus, the more alternative water sources, and the greater the ability to modify diversion patterns while meeting water demands, the greater the flexibility. With system flexibility, we have a better chance of reducing the tension between competing uses of water. Thus, the EWA consumes system flexibility to protect fish. MWD uses flexibility to buffer the impacts of reductions to any one supply source. Increased conveyance capacity increases flexibility, provided that regulations allow use of the capacity. So does storage. So do water transfers.

Need to better define what conveyance system this section is including. Is it mainly on transporting water diverted from rivers, or including local distribution system? Section seems to vacillate between the two.

Numerous unsubstantiated statements. Statements of fact – e.g., that south Delta improvements will cost $1 billion or that Delta flood capacity is diminished -- should be footnoted.

Specific Comments

Page 1. 2nd paragraph. Odd to use desalination as the supply source for the intraregional example. Who diverts from a river using desalination? Sounds like a subliminal message – local is good, long distance transport is bad.

Page 1. 3rd paragraph. Note the emphasis on North vs South, wet versus dry. The document should avoid this political rhetoric (the giant sucking sound in the south), it is not a correct generalization. Why not mention another dimension -- that water originates in the east (Sierra Nevada/ Owens Valley/ Colorado) and is used in the west (Central Valley/ Bay Area/ southern California)? The bottom line is that water is diverted out of rivers to areas of water demand, with the economics of conveyance infrastructure limiting

how far the conveyance can run. The Colorado Basin is not a wet area. It is just so large that it feeds a major river. Most or all of water of the Kern, Tule, Kaweah Kings and San Joaquin Rivers is diverted. What is special about northern California (from Merced north) is that it has enough water to meet in basin needs + some out of basin needs + still support in-river ecosystems.

Page 2. 3rd full paragraph. An example of defining river standards as a conveyance "activity". Why does meeting a temperature standard belong in the conveyance section? It is, rather, a constraint on the use of the river for conveyance. Etc.

Page 2, 4th full paragraph. This is one place that I would not mind having MWD system as a regional example of linking 2 imported systems and the local supplies, and how the conveyance system has afforded the region flexibility and management opportunities of wet/dry cycles.

Page 3 and 4. This section is very rough. It needs thorough editing. There are misstatements and improper generalizations.

The second bullet should say, "Other benefits of conveyance <u>can</u> include (not "generally include")." How is conveyance linked to water use efficiency and reductions in operating costs?

Need to explain how conveyance expands flexibility and then how that this new flexibility can be used (and consumed) in either improving supply volume, reliability, quality or in reducing the impact of diversions on the environment. Flexibility is more of a jargon word for water operators, it does not mean a whole lot to the general public other than saying it is a good thing.

Page 4. Under Potential Costs – Too much generalization. The cost of conveyance is controlled as much by the elevation to which water is conveyed as the distance. (Note that the Friant Kern canal system actually generates energy). What constitute costs, capital and O&M? It does not cost several hundred dollars to convey an acre-foot to Southern California. Conveying Colorado River water is less than $100/AF, SWP is between $180 to $280/AF, including capital and O &M. Where does $1 billion estimate for south Delta improvements comes from, unless it includes fish screens. Fish screens are not tied to expanded Banks at 8500 cfs, and are still under evaluation for the needs and costs for 10,300 cfs.

Page 4. Maintenance. Why would environmental concerns increase maintenance costs? How do maintenances diminish Delta flood capacity?

Under Recommendations. Bullet 4. Again what kind of conveyance are we talking about? Recycling and desalting will not generally be linked into the major trunk lines. They plug into the distribution system. It is storage and exchanges that create the largest needs for conveyance.

Desalination

Need to footnote sources of data.

Confusing description on p1, last sentence of 1st paragraph under Current Desalination in California. "The 30 plants that are used for municipal purposes, total about 80,000 acre-feet per year in capacity, more than half of the total water capacity." What total water capacity?

Drinking Water Treatment and Distribution

Page 2, first paragraph: The first full sentence starting with "Ironically, the implementation of ozone …" is not appropriate for the Current Status discussion. The sentence should be deleted, or alternatively moved to the Major Issues section under a new heading titled "Treatment Challenges". In addition to the existing text, the discussion should also include information about what drinking water utilities are doing to manage the microorganism regrowth issue in the distribution system. If a new Major Issue on treatment challenges is added it should include a short discussion of the challenges utilities face to make decisions on treatment improvements that will be reliable and address a number of drinking water quality regulations and concerns (e.g., the balance between disinfection for microbial control and control of disinfection by-products).

Page 2, last paragraph on Potential costs: The treatment cost information provided in this paragraph is very misleading to the reader, as only O&M costs for implementing an advanced treatment technology are included. Cost information for conventional water treatment should be included to provide a context for the additional costs of advanced treatment technologies, since advanced treatment technologies, such as ozone, are integrated into existing conventional treatment facilities. In addition, the costs for advanced treatment technology examples should include capital costs.

Ecosystem restoration

The text seemed to ignore the CALFED process altogether, yet the CALFED problem and solution areas are enormous parts of California. Further, there is supposed to be a "get-better-together" approach among the various CALFED programs, including conveyance and drinking water quality.

The text is not up-to-date. Old references are used, all but two from 1993 to 1998. The only CALFED reference is the 2000 strategic plan, yet much has happened since then to shape options for DWR and the eco agencies, including governance. A 2001 reference relates to undamming rivers.

The chapter (and perhaps the entire document) keeps saying that water users want "reliability". Need to define this term. From a water users standpoint, and the CALFED ROD context, it means modest increases in supplies + improvements in water quality + no surprises reductions due to ESA.

Specific comments

Page 1, last paragraph,Page 2 under "current conditions", Page 3, paragraph 1, etc. Way too much focus on the linkage between water management and environmental degradation. There is the implication that dams and diversions are the main culprits for declines. Almost totally ignores river levees, Delta levees, land use changes due to agriculture, overfishing, invasive species, changes in ocean conditions, etc. Suggest taking the CALFED program approach, where multiple causes and multiple solutions are identified.

Page 3, para. 2, sent 1. An "ecosystem stressor" is not an "impact" but a causative agency such as water temperature, contaminants, or entrainment.

Page 3, 3rd paragraph. Posits that society has rejected water projects because the public made an informed decision that the environmental impacts were too high. Where is the evidence of this? Certainly non is presented. In fact, the fish agencies were entirely for the peripheral canal. It was defeated by a cynical manipulation of north-south tensions. The case is probably stronger with regards to damming the northern rivers and Auburn Dam. But economics has also always played a strong role, as has antigrowth sentiment, and diminishing benefits from new projects. To attribute everything to the ecosystem instincts of "society" is laughable.

Page 4, "Economic Benefits" This paragraph is more opinions than facts. Restoration will rarely pay off economically. The benefits lie more in intangibles -- people like knowing that natural salmon runs remain strong. That is why they vote for these bonds. Certainly not because they think it is a good economic investment. I suppose there could be exceptions. Conversely, the attack on growth as being uneconomic is disingenuous. Just because growth may not always pay its way with local government does not mean that society as a whole does not benefit. How did such garbage survive in this document so long?

Page 4, The Economics Benefits discussion would be more informative if the benefits were expressed in terms of Net Present Value, but the author never gets to stating such a recommendation.

Page 4. The native species discussion never gets around to the benefit of increased water supply reliability.

Page 5. "Efficiency of restoration could just use the simpler term of "cost-effectiveness," in terms of cost/unit gain (e.g. $/fish).

Page 6. Under scientific uncertainty, the impression is left that managers are to blame for asking for some level of information before investing large resources in protection. No recognition of the flip side that vast amounts of money have been spent to little effect, leaving less money left over for real restoration.

Page 8. The EWC blueprint is not objective, opinion rather than science. The references in this section should be scientifically credible. If DWR wants to also identify stakeholder position papers, it should put them in a clearly identified section, and should include documents from all stakeholders.

The "Recommendations section sounds very isolationist to me. No collaboration or working out solutions within the collaborative framework, or using the science provided by CALFED, rather it sounds like DWR alone.

The "Funding uncertainty section did not seem to have a recommendation. I would suggest that DWR participate with CALFED and get prices for restoration actions, support estimation of cost-effectiveness and the comparison to other eco actions. I would also suggest that DWR get independent peer review of costs of proposed water management actions.

Matching Water Quality to its Use

Page 2, last paragraph: The last two sentences (" Nonetheless, water quality exchanges …") should be moved to the major issues section since the text is addressing potential third party impacts of water quality exchanges and balancing public health risks of contaminants when switching water sources. These are both issues for implementation, not background information.

Page 4, first paragraph: Revise the fifth sentence as follows: "In return, the agricultural user would return a like amount of pumped groundwater during the fall-winter period when <u>there is excess groundwater pumping capacity and</u> bromide and total dissolved solids in Bay-Delta supplies are higher."

Pollution Prevention

Page 3, figure and associated text under "Drinking water sources": The figure and the text need clarification. Is the information on number of drinking water sources exceeding the MCLs for drinking water sources before treatment or after treatment? Also, what is happening with these contaminated sources? Are they being treated to remove contaminants and used as source of supply (a treatment cost issue), or are they being abandoned and replaced with other sources of supply (a supply concern)?

Page 3, last paragraph on the Delta: Revise the second sentence as follows to more fully characterize the problem with bromide. "A unique aspect of this water source is that seawater <u>intrusion</u> introduces relatively high levels of bromide that, upon ~~ozonation~~ <u>disinfection</u> in a domestic water treatment plant, <u>contributes to the formation of</u>

disinfection by-products, such as trihalomethanes and bromate, which are potential carcinogens ~~can be converted to bromate, a potential carcinogen~~."

Surface Storage

No references for key pieces of information. Lots of "he said, she said" stuff that doesn't really belong here.

Specific comments.

Page 2, "Potential Benefits". Need a definition of operational flexibility. Listing of benefits to be very bland. Better management blah blah blah. Why not "new water to support California's economy, flexibility to protect fish without reducing water use. Ability to respond to global warming without increasing flood control risks, new clean power generation to reduce greenhouse warming, create new jobs, etc. By comparison, thelist of possible impacts later is very emotive (loss of tax base, loss of jobs, etc!).

Page 3, last paragraph, "Consensus issues". Seems to be biased. Why is this discussed here while some believe that the amount generated by water use efficiency is a fantasy is not discussed in that section? Suggest staying to the facts. Water Plan should not have as a function reporting on stakeholder postures.

Page 5. Impacts. In most cases, I can link a benefit to each impact. But these benefits do not show up in the benefits section earlier. I already discussed above.

Page 6. Bullet 4. Why tie storage to conservation, recycling, and a transfer market?

System Reoperation

The definition of system reoperation is flawed. At times, it is too narrow and other it became too broad. Reop is performed to increase total benefits from operations (where benefits can be economic and non economic). That is, we can use reop to increase yield. We can also use reop to generate EWA yield for fish or improve temperatures for fish. The key is that we are increasing overall benefits. The introductory paragraph reads as if the only purpose of reop was for water users to boost environmental protection with minimal net impact. The examples on the bottom of the page actually are actually broader than the text above.

Another example that would be integrating the operations of multiple projects to increase supplies with reduced risk.

By contrast, the discussion on page 2 expands the concept of reop to the point that it becomes meaningless. Is changing from D 1485 to D 1641 standards an example of reop? I suppose you could make that argument. But the new standards really represent changed constraints on the Projects. The reop comes when the agencies try to compensate

for the loss of their supplies. The temperature control device is not reop. I suppose you could argue that the control device allows for reop. But in fact, the temperature control device was created as a physical solution to minimize the need for reop (i.e., avoid having to bypass the power plant). Is b2 water reop? Again, it involves changed operations, but it does not directly involve any attempt to improve operational technique. It is more just a reallocation. It is the CVP's attempt to compensate for the effects of b2 that is more interesting. When I think of reop, I think of trying to squeeze more benefits out of the same infrastructure through clever operations -- not every possible change in operations for whatever reason.

Same issue on page 3. FERC relicensing may impose new operational requirements. The interesting reop comes when the Projects try to minimize the impacts of those requirements on their supplies.

Page 4. I don't know what it means to say that reop provides flexibility to respond to extreme events. It is a truism that extreme events may force changes in operations. What is more interesting is to talk about the infrastructure and contractual changes needed to help the operational adjustments when they are needed (e.g., storage south of Delta to deal with an earthquake in the Delta).

What is the reference that reop is always cheaper than new surface storage? What about after we have exhausted all reop possibilities given the constraints imposed?

The chapter should give much more attention to better statistical and risk analysis. This is the foundation for many of the true reop improvements out there (as opposed to reallocations)

Volume 2, Urban Land Use Management:

This section seems to be targeted more to land use and urban planners than water resource planners. Most of the recommendations in this section do not belong in the California Water Plan and should be replaced with a language that focuses on how development patterns influence water demand and supply. The report might also direct water and land use planners to DWR's own SB 610/221 planning guide for more information.

This section discusses the water resource benefits of "resource efficient" growth, (read smart growth or "compact growth). The benefits to water supply of resource efficient include lower water demands, as well as less impervious surface area and decreased development in water sheds, all leading to better water quality. The section includes numerous recommendations, most of which are beyond the scope of water agencies or redundant given current land use and water supply law. In essence, this section seems to be written for the land use planner promoting smart growth and in-fill development in their planning areas. This may be a stance that the state is taking, but clearly state that it is not within DWR or any water agency's jurisdictions or responsibilities.

Suggest that this section could be improved by specifying exactly whom these recommendations are for. Also, suggest that all recommendations that are covered by existing law (i.e. SB 610 and SB 221) be deleted or referred to the SB 610/221 guide.

Urban Runoff Management

This paper strongly overlaps with the papers on pollution prevention and watershed management, and is not really needed. If DWR desires to keep this, explain clearly what aspects are unique and not covered by other sections.

Watershed Management

Page 5, fourth paragraph on "Water supply reliability and management flexibility": A reference is needed for the Feather River meadow restoration example discussed in the paragraph. This could be provided as a footnote or in the information sources box at the end of the section.

Water Transfers

Is Department of Justice okay with these paragraphs? In Sept 2003, Virginia Cahill (sp?) of DOJ spoke about 'public trust.' My notes of the time say: "that the discussion of public trust needed to be limited to those laws that exist (i.e. in stream). [Virginia Cahill] said that while it may be appropriate to discuss other issues, that those other issues must not be termed public trust."

Yet these paragraphs say

b. "The SWRCB, when it considers whether to approve petitions for change or transfer, DWR, in deciding whether to approve use of those facilities, and DFG, when reviewing proposed transfers, **must** consider whether the transfer is likely to harm public trust resources, such as fish and wildlife, and **must** protect trust resources whenever feasible. The SWRCB and DWR, after considering all available information, including CEQA documents or other environmental documents and the input of DFG, may put conditions on transfer to protect trust resources. If the SWRCB or DWR find that proposed transfer will cause undue harm to trust resources, they may (1) add terms to avoid the harm (2) the SWRCB may deny the petition or (3) DWR may deny the use of its facilities. In many cases, transfers will not result in harm to trust resources.

c. Under Section 1802 of the Fish and Game Code, DFG **must** exercise its responsibilities as trustee for the resources of the state with jurisdiction over the conservation, protection, and management of fish, wildlife, native plants, and habitat necessary biologically sustainable populations of those species.

I question both the use of the term 'public trust' and the imperative word 'must'.

On page 13, I would prefer 'effects' replace the judgmental 'impacts.'

h. …developing, with interested parties, acceptable ways to identify, lessen, and distribute economic impacts from transfers that use crop idling and shifting.

Also on page 13, the phrase "public trust resources" is 1) redundant, and 2) inconsistent with DOJ advise...

j. …seeking consensus among interested parties about the role of water transfers as a water management strategy while identifying and protecting or mitigating potential impacts to other water users, third parties, the environment, and public trust resources.